REMARKS

Applicants note with appreciation that claims 3, 5-7, and 10 are allowable if rewritten in independent form. New claim 21 is claim 3 rewritten in independent form. New claim 22 is claim 5 rewritten in independent form. New claim 23 is claim 6 rewritten to be dependent on new independent claim 22. New claim 24 is claim 7 rewritten in independent form. New claim 25 is claim 10 rewritten in independent form. Allowance of new claims 21-25 is therefore respectfully requested.

Claims 1, 2, 4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petry, *et al.* (United States Patent Number 6,538,985) in view of Petry (United States Patent Number 6,222,851 – referred to hereinafter as "Petry '851"). Reconsideration is respectfully requested.

Independent claim 1 is amended herein to clarify that "a method for recognizing stations in a home network of an OFDM-based system, wherein the home network includes starting and destination stations" comprises "constructing," by the "starting station," "tones that correspond to" "assigned subchannels," the "tones assigned to the starting station and the destination station," and the "tones including the node number of the starting station and the node number of the destination station," and "being constructed as a single OFDM symbol," and "placing the single OFDM symbol in a frame for transmission."

Independent claim 1 is further amended herein to clarify that "a method for recognizing stations in a home network of an OFDM-based system, wherein the home network includes starting and destination stations" comprises "stations other than the starting station detecting the tones from the frame, recovering the node numbers of the starting station and the destination station using indices of the subchannels obtained from the tones, and recognizing the starting station and the destination station."

It is submitted that Petry, *et al.* and Petry '851, alone or in combination, fail to teach or suggest a "method for recognizing stations in a home network of an OFDM-based system, wherein the "home network includes starting and destination stations," comprising

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"constructing" by the "starting station," "tones that correspond to" "assigned subchannels," the "tones assigned to the starting station and the destination station," and the "tones including the node number of the starting station and the node number of the destination station," and "being constructed as a single OFDM symbol," and "placing the single OFDM symbol in a frame for transmission," as claimed in independent claim 1.

Petry, *et al.* teaches a MAC protocol using OFDM data structures subject to the constraint of a contention PHY frame that is used to which nodes are synchronized, wherein each node "plays" a uniquely assigned identifier tone in OFDM FFT frequency bins (see Petry, *et al.*, column 4, lines 11-19). However, there is no teaching or suggestion in Petry, *et al.* at column 4, lines 11-19, or anywhere in Petry, *et al.*, of the PHY frame being from a "starting station" that constructs "tones" (see, for example, recognition tones of the frame shown in Figure 4 of Applicants' drawings), which correspond to "assigned subchannels," and which are "assigned to the starting station and the destination station," which include a "node number of the starting station" and a "node number of the destination station," and which are constructed as a "single OFDM symbol," as claimed in independent claim 1. A description of the manner in which nodes/channels are synchronized is described in Petry, *et al.* at page 4, line 56 through page 5, line 11. However, "constructing tones…," as claimed in amended independent claim 1, is patentably distinct from the manner in which the nodes/channels are synchronized is described in Petry, *et al.* at page 4, line 56 through page 5, line 11.

Further, Petry, *et al.* teaches that each node transmits tones corresponding to its assigned identifier (see Petry, *et al.,* column 5, lines 1-2). However, there is no teaching or suggestion in Petry, *et al.* of the nodes of Petry, *et al.* transmitting tones to include <u>both</u> a "node number of the starting station" <u>and</u> a "node number of the destination station," as claimed in amended independent claim 1.

Applicants further note that the current Office Action at pages 2-3, section 3(b) repeats the position taken in the previous Office Action at page 3, section 4(b) mailed on June 26, 2007, i.e., Petry, *et al.* at column 4, lines 11-19 teaches a "starting station constructing tones corresponding to the subchannels assigned to its own node number and the node number of the

destination address as a single OFDM symbol...." However, the current Office Action does not address Applicant's remarks made in Amendment A filed on September 24, 2007, in response to the previous Office Action mailed on June 26, 2007. Applicants have reproduced the remarks made in Amendment A for the convenience of the Examiner:

> Petry conforms to a media access control (MAC) protocol for an OFDM-based LAN (see Petry, column 3, lines 59-61). Petry further takes advantage of OFDM frames available on a channel physical layer (see Petry, column 3, lines 61-62). However, there is no teaching or suggestion in Petry of a "starting station" that constructs "tones" corresponding to "subchannels assigned to its own node number" and a "node number of the destination station" as a "single OFDM symbol," and "placing the OFDM symbol in a frame for transmission," as claimed in amended independent claim 1. Specifically, there is no teaching or suggestion in Petry of a "starting station" "constructing tones" as a "single OFDM symbol," as claimed in claim 1, since there is no teaching or suggestion in Petry of a "starting station constructing tones corresponding to subchannels" that are assigned to a node identifier of a starting address of Petry and a node identifier of a destination address of a destination station in Petry as a "single OFDM symbol." Instead, the starting address and destination address in Petry are placed in separate fields of a frame structure, in a manner similar to that disclosed in the Background section of the specification as filed at Figure 2 and page 3, lines 1-5. One of skill in the art knows that the MAC layer frame format disclosed in Petry at column 4, lines 1-4 includes separate fields for a source address and a destination address. FIG. 2 of Applicants' drawings, for example, illustrate a starting address field SA and a destination address DA field being separate fields in a frame. Nowhere does Petry teach or suggest a "starting station" "constructing tones" as a "single OFDM symbol," as claimed in claim 1, for example, a recognition tone being constructed as a first OFDM symbol of a frame to be transmitted (see Figure 4, and page 12, lines 14-21 of the specification as filed).

Petry '851 likewise fails to teach or suggest a "method for recognizing stations in a home network of an OFDM-based system, wherein the "home network includes starting and destination stations," comprising "constructing" by the "starting station," "tones that correspond to" "assigned subchannels," the "tones assigned to the starting station and the destination station," and the "tones including the node number of the starting station and the node number of the destination station," and "being constructed as a single OFDM symbol," and "placing the single OFDM symbol in a frame for transmission," as claimed in independent claim 1.

In addition, it is submitted that Petry, *et al.* and Petry '851, alone or in combination, fail to teach or suggest "stations other than the starting station detecting the tones from the frame, recovering the node numbers of the starting station and the destination station using indices of the subchannels obtained from the tones, and recognizing the starting station and the destination station," as claimed in amended independent claim 1.

Petry, *et al.* further fails to teach or suggest "recovering the node numbers of the starting station and the destination station using indices of the subchannels obtained from the tones, and recognizing the starting station and the destination station," as claimed in independent claim 1. The Office Action at page 3, lines 3-4 refers to Petry, *et al.* at column 2, lines 66-67 as teaching "recovering the node number using indices of the subchannels obtained from the tone." However, Petry, *et al.* at column 2, lines 66-67 only refers to a node identifier that may be assigned or automatically discovered by a system. Further, Petry, *et al.* further teaches that the node identifier is assigned to each LAN node, wherein the node identifier is the index of a FFT frequency bin (see Petry, *et al.*, column 2, lines 63-64). While Petry, *et al.* teaches that a node identifier being an index of a FFT frequency bin, there is no teaching or suggestion in Petry, *et al.* of "recovering" "node numbers" of the "starting station and the destination station" using "indices" of "subchannels" obtained from "tones," as claimed in claim 1.

Petry '851 likewise fails to teach or suggest "stations other than the starting station…recovering the node numbers of starting station and the destination station using indices of the subchannels obtained from the tones, and recognizing the starting station and the destination station," as claimed in independent claim 1.
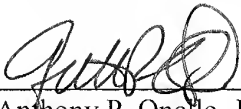
Accordingly, since Petry, *et al.* and Petry '851 fail to teach or suggest the claimed features set forth in independent claim 1, there is no way to combine the references to obtain such teaching or suggestion of the claimed features, and therefore, there is no combination of the references that teaches or suggests the invention set forth in claims 1, 2, 4, 8, and 9. Claims 1, 2, 4, 8, and 9 are therefore believed to be allowable over the cited references. Accordingly,

reconsideration of the rejections of claims 1-5, **8**, and 9 under 35 U.S.C. 103(a) based on Petry, *et al.* and Petry '851, and allowance of the claims, are respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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